# BookletChart™

## Rosario Strait – Southern Part

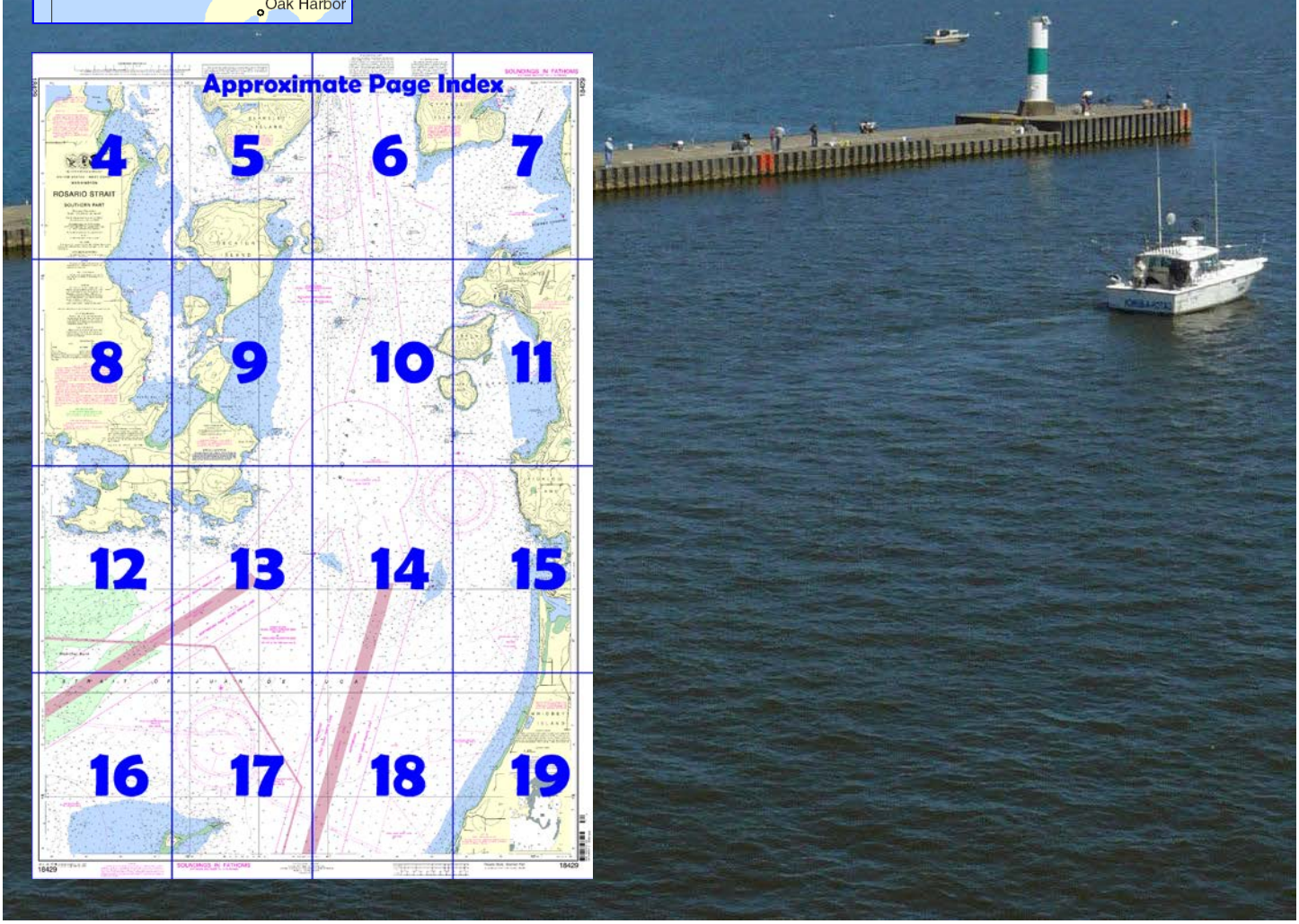
### NOAA Chart 18429

***A reduced-scale NOAA nautical chart for small boaters***

***When possible, use the full-size NOAA chart for navigation.***


- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



***Published by the***
***National Oceanic and Atmospheric Administration***
***National Ocean Service***
***Office of Coast Survey***
***www.NauticalCharts.NOAA.gov***
***888-990-NOAA***

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

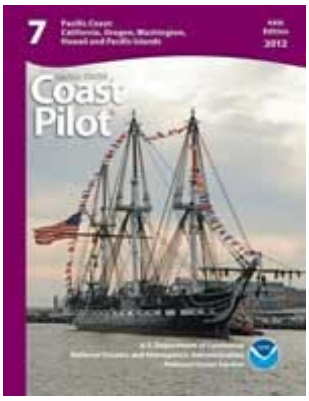
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18429.




**(Selected Excerpts from Coast Pilot)**
**Caution.**-Since logging is one of the main industries of the region, free-floating logs and submerged deadheads or sinkers are a constant source of danger in the Strait of Juan de Fuca and Puget Sound. The danger is increased during freshets, after storms, and unusually high tides. **Deadheads** or **sinkers** are logs which have become adrift from rafts or booms, have become waterlogged, and float in a vertical position with one end just awash, rising and falling with the tide.

**Strait of Juan de Fuca, E end.–Hein Bank**, with a least depth of 2½ fathoms, lies 8.5 miles SE of Discovery Island; it is about 2 miles long in a N direction, within the 10-fathom curve, and 0.8 mile wide. The shoalest part of the bank is covered with thick kelp in the summer. It is marked by two lighted buoys, the northernmost is equipped with a racon.
**Smith Island**, 5 miles W of Whidbey Island and 8 miles ESE of Hein Bank, is irregular in shape and about 0.5 mile long. The E end is low, but rises abruptly to an elevation of 55 feet at its W end, terminating in a white perpendicular cliff composed of sand and gravel. A rocky bank, covered with kelp, extends about 2 miles W of the island over depths of 3 to 6 fathoms. A rock that bares at lowest tides is about 0.3 mile W of Smith Island. Strong currents set in and around the shoal area, especially on the flood, and deep-draft vessels should keep well outside the 10-fathom curve to avoid being set into danger. **Smith Island Light**(48°19'06"N., 122°50'38"W.), 97 feet above the water is shown from a 45-foot skeleton tower near the W extremity of the island.
A **restricted area** of an air-to-surface weapon range is W of Smith Island. (See **334.1180**, chapter 2, for limits and regulations.)
**Minor Island**, small, low, and rocky, lies 1 mile NE of Smith Island, and at lowest tide is connected with it by a gravel and boulder spit. A light is on the island.
The northernmost part of the western shore of **Whidbey Island** forms the E end of the Strait of Juan de Fuca. This part of the island has a uniform sandy shore backed by low and rolling upland of farm and wooded areas.
**Naval restricted areas** are adjacent to the northernmost part of the W shore of Whidby Island. (See **334.1200**, chapter 2, for limits and regulations.)
**East Sound** indents Orcas Island NNW for about 6 miles. Depths vary from 15 fathoms at the entrance to 9 fathoms less than 0.2 mile from the head. There are no outlying dangers, and the shores may be approached to within 0.2 mile; however, a shoal covered less than 5 fathoms extends some 700 yards off the W shore, 0.8 mile inside the entrance. Anchorage may be had anywhere in the sound.
**Olga** is a village on the W shore of **Buck Bay**, a small cove on the E shore of the sound just inside the entrance.
**Cascade Bay**, a small cove on the E side of the sound, about 3 miles N of the entrance, is the site of a large resort with floats having berths with electricity for about 60 craft. Gasoline, diesel fuel, water, ice, and a restaurant are available. Depths of 15 feet are reported alongside the floats. The large white resort hotel on **Rosario Point,** the W point of the bay, is conspicuous.
**Currents.**-For times and velocities of current in Rosario Strait and vicinity, the Tidal Current Tables should be consulted. The currents in Lopez, Thatcher, and Obstruction Passes are reported to attain velocities of 3 to 7 knots. This should be kept in mind when proceeding through Rosario Strait, particularly at night or in thick weather. On the ebb of a large tide off the entrance to the passes, a S wind causes tide rips that are dangerous to small craft.
Currents in the narrows of Deception Pass attain velocities in excess of 8 knots at times and cause strong eddies along the shores. With W weather, heavy swells and tide rips form and make passage dangerous to all small craft. (See the Tidal Current Tables for daily predictions.)

**U.S. Coast Guard Rescue Coordination Center**
**24 hour Regional Contact for Emergencies**

| | | |
|---|---|---|
| RCC Seattle | Commander<br>13th CG District<br>Seattle, WA | (206) 220-7001 |

# Table of Selected Chart Notes

**FLOUNDER BAY**
Numerous private markers and piling mark the entrance channel.

**HEIGHTS**
Heights in feet above Mean High Water.

**Note**
Naval Air Station small arms range operates 7 days a week. Red flashing light and flags are displayed during live fire exercises. Use caution when transsitting near the zone.

**NOTE D**
The U.S. Coast Guard operates a mandatory Vessel Traffic Service (VTS) system in Puget Sound. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of this chart falls within the Vessel Traffic Service (VTS) system.

**CAUTION**
**SUBMARINE PIPELINES AND CABLES**
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

*Pipeline Area* *Cable Area*

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

**WARNING**
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

For Symbols and Abbreviations see Chart No. 1

**LOCAL MAGNETIC DISTURBANCE**
Differences from the normal variation have been observed as follows:
Eastern shore of Burrows Bay 4°

**CAUTION**
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

**NOAA WEATHER RADIO BROADCASTS**
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

| | | |
|---|---|---|
| Puget Sound, WA | WWG-24 | 162.425 MHz |

**CAUTION**
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

**RADAR REFLECTORS**
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

**AIDS TO NAVIGATION**
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

**POLLUTION REPORTS**
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

**HORIZONTAL DATUM**
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.636" southward and 4.632" westward to agree with this chart.

Mercator Projection
Scale 1:25,000 at Lat. 48°26'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO ELEVEN FATHOMS)
AT MEAN LOWER LOW WATER

**NATIONAL WILDLIFE REFUGE**
The areas labeled NWR (National Wildlife Refuge) are closed to the public to protect breeding colonies of seabirds, endangered and threatened species, and marine mammals. Boaters are requested to stay at least 200 yards away from these islands to avoid disturbance to these animals.

**WIRE DRAGGED AREAS**
The areas within the dashed green lines have been swept clear to at least the depths indicated in fathoms and feet by the green numbers.

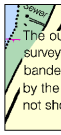
**COLREGS, 80.1390 (see note A)**
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

**NOTE B**
**NAVAL OPERATING AREAS**
Mariners should use caution as naval craft may be maneuvering within the areas. For further information, consult Local Notice to Mariners.

**NOTE C**
Mariners are cautioned that the Washington State Ferries may deviate from the published standard routes due to inclement weather, traffic conditions, navigational hazards, or other emergency conditions. Standard ferry routes within the waters of the San Juan Islands are not displayed on this chart.

**NOTE A**
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Washington or at the Office of the District Engineer, Corps of Engineers in Seattle, Washington.
Refer to charted regulation section numbers.

**AUTHORITIES**
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Geological Survey , and U.S. Coast Guard.

**SOURCE DIAGRAM**

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

**TIDAL INFORMATION**

| PLACE | | Height referred to datum of soundings (MLLW) | | |
|---|---|---|---|---|
| NAME | (LAT/LONG) | Mean Higher High Water | Mean High Water | Mean Low Water |
| | | feet | feet | feet |
| Thatcher Pass | (48°32'N/122°48'W) | 7.8 | 7.2 | 2.3 |
| Bowman Bay, Fidalgo I | (48°25'N/122°39'W) | 7.7 | 7.1 | 2.5 |

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.
(Nov 2006)

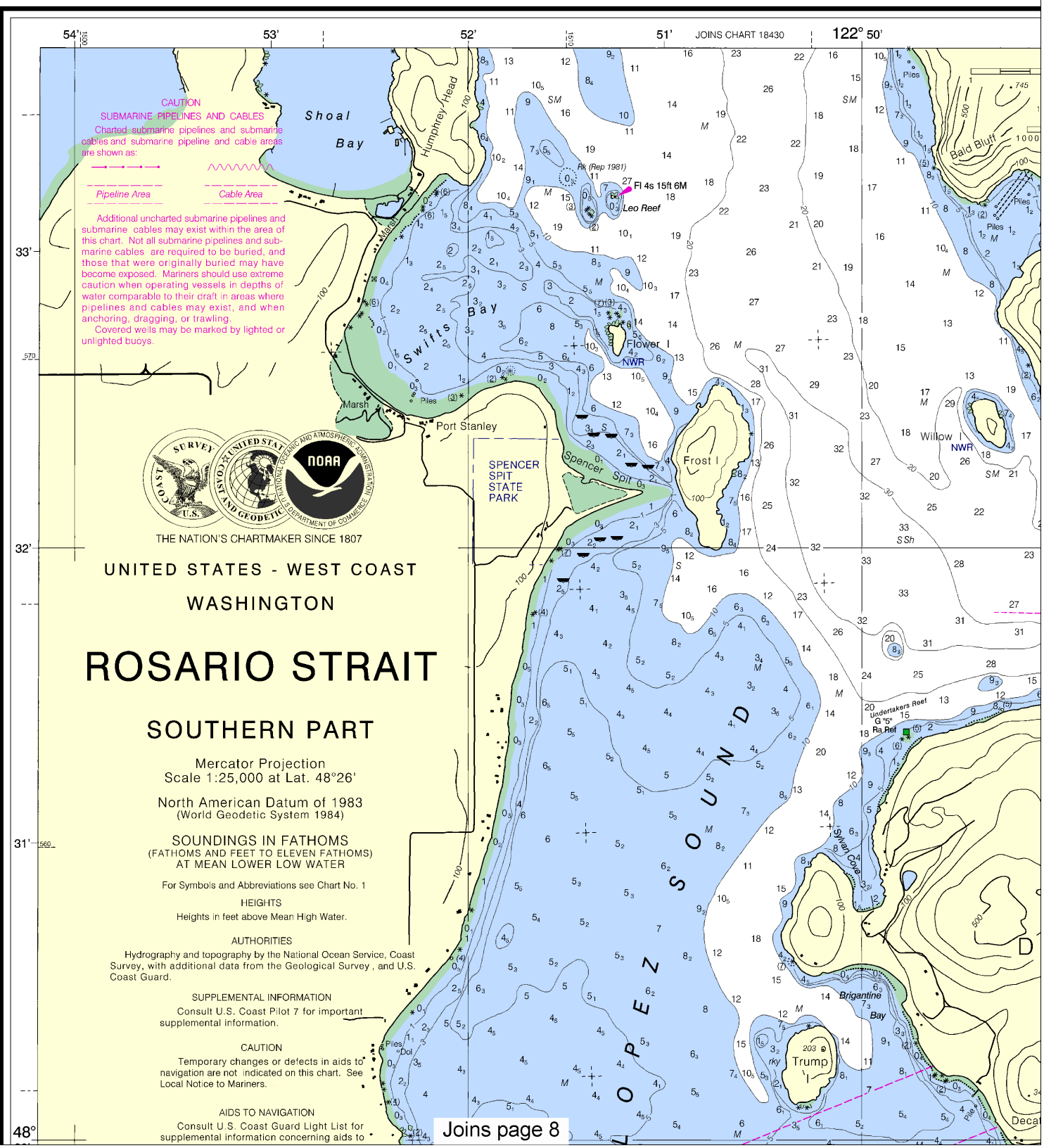
18429

LOGARITHMIC SPEED SCALE

1 2 3 4 5 6 7 8 9 10 15 20 25 30 40 50 60

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

This nautical chart
Ocean Service encoura
improving this chart to
Service, NOAA, Silver




Joins page 8

4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

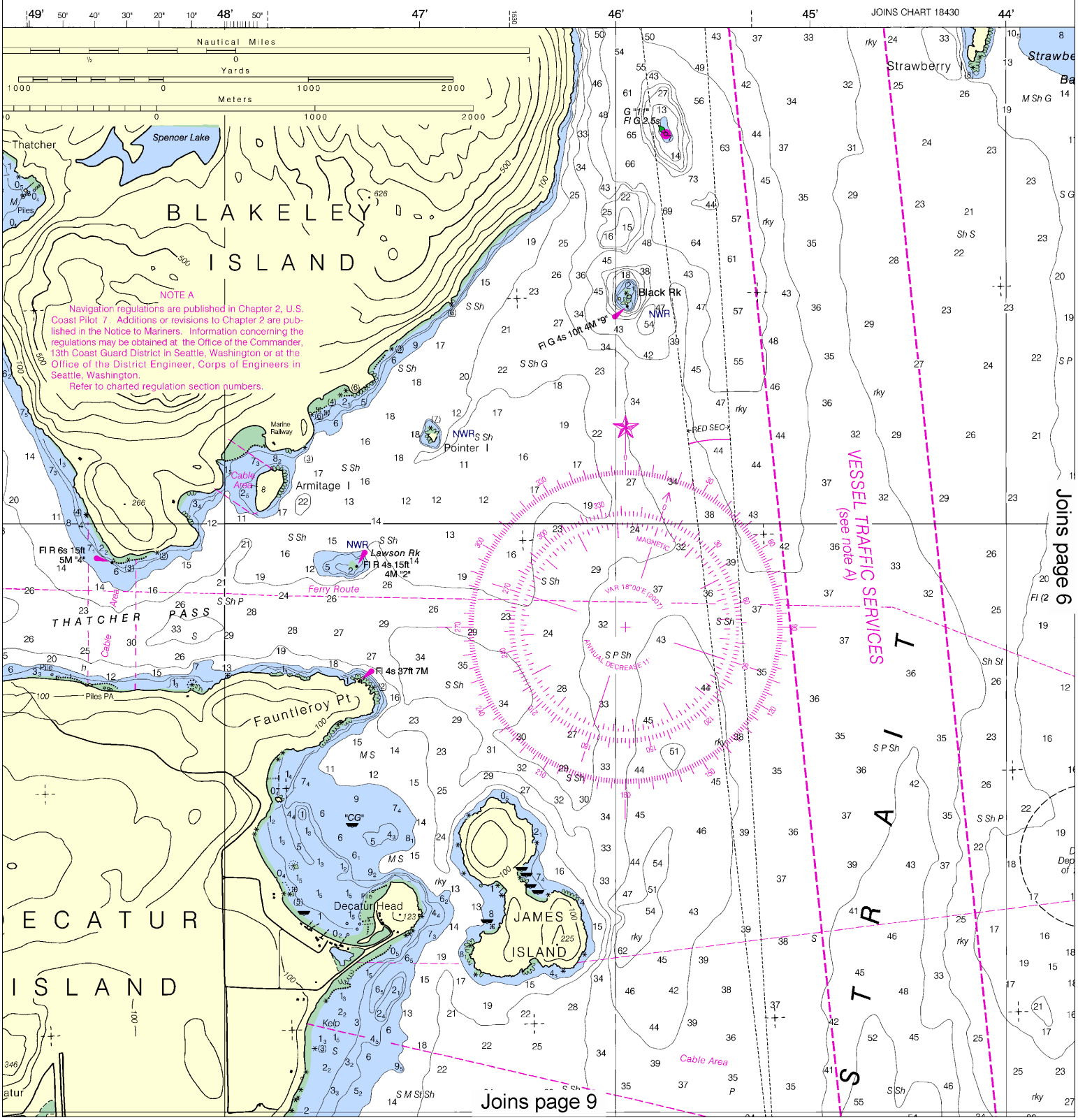
Yards
1000 0 1000 2000

art has been designed to promote safe navigation. The National
urages users to submit corrections, additions, or comments for
to the Chief, Marine Chart Division (N/CS2), National Ocean
er Spring, Maryland 20910-3282.

1st Ed., Mar. 1979 KAPP 1682

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, http://NauticalCharts.gov, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, http://OceanGrafix.com, or help@OceanGrafix.com.



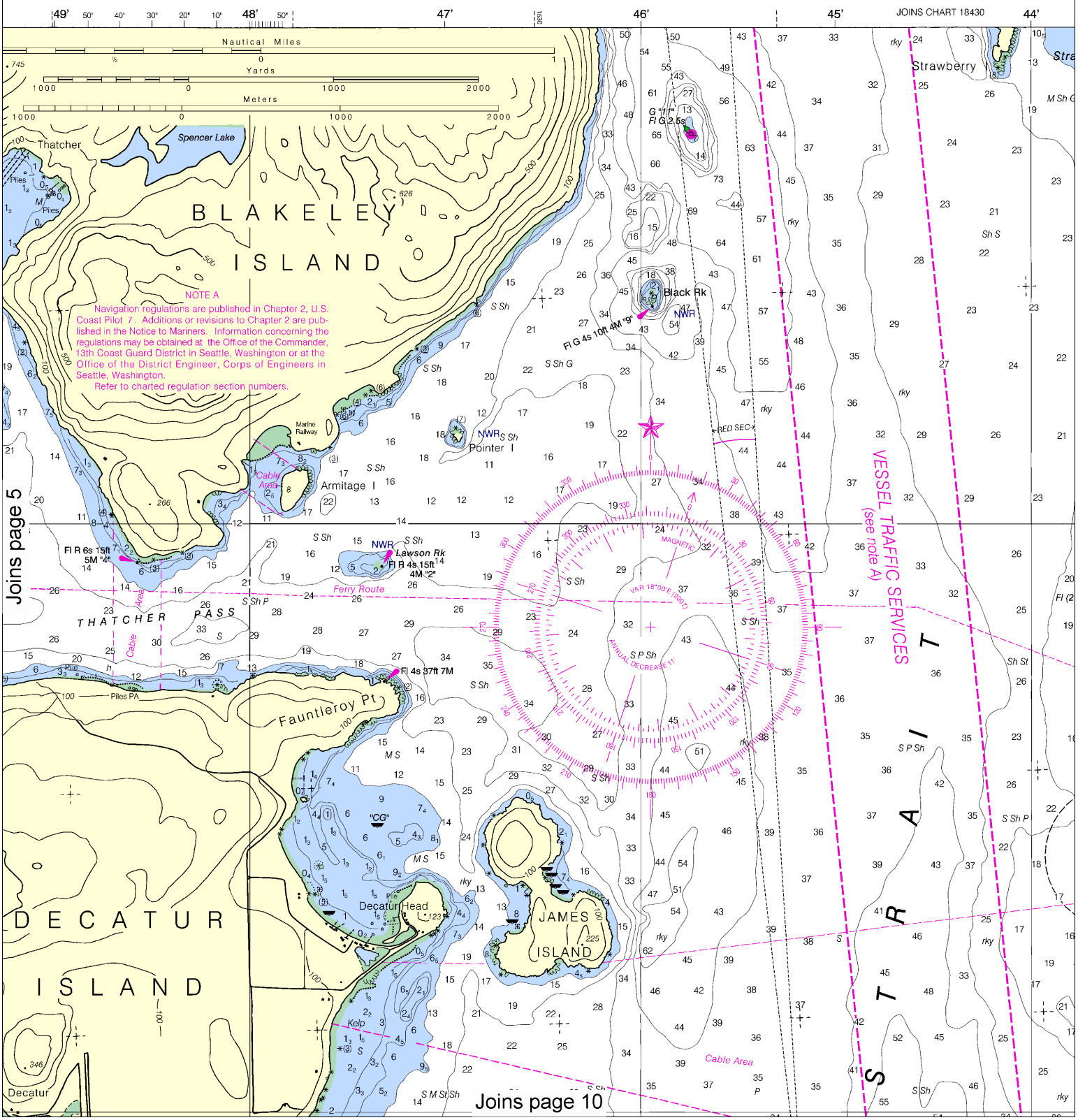

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:33333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

al chart has been designed to promote safe navigation. The National encourages users to submit corrections, additions, or comments for chart to the Chief, Marine Chart Division (N/CS2), National Ocean , Silver Spring, Maryland 20910-3282.

1st Ed., Mar. 1979 KAPP 1682

PRINT-ON-DEMAND CHARTS

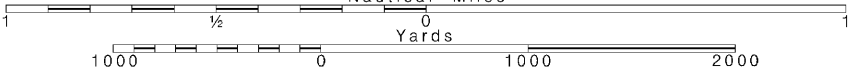
NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, http://NauticalCharts.gov, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, http://OceanGrafix.com, or help@OceanGrafix.com.






Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.



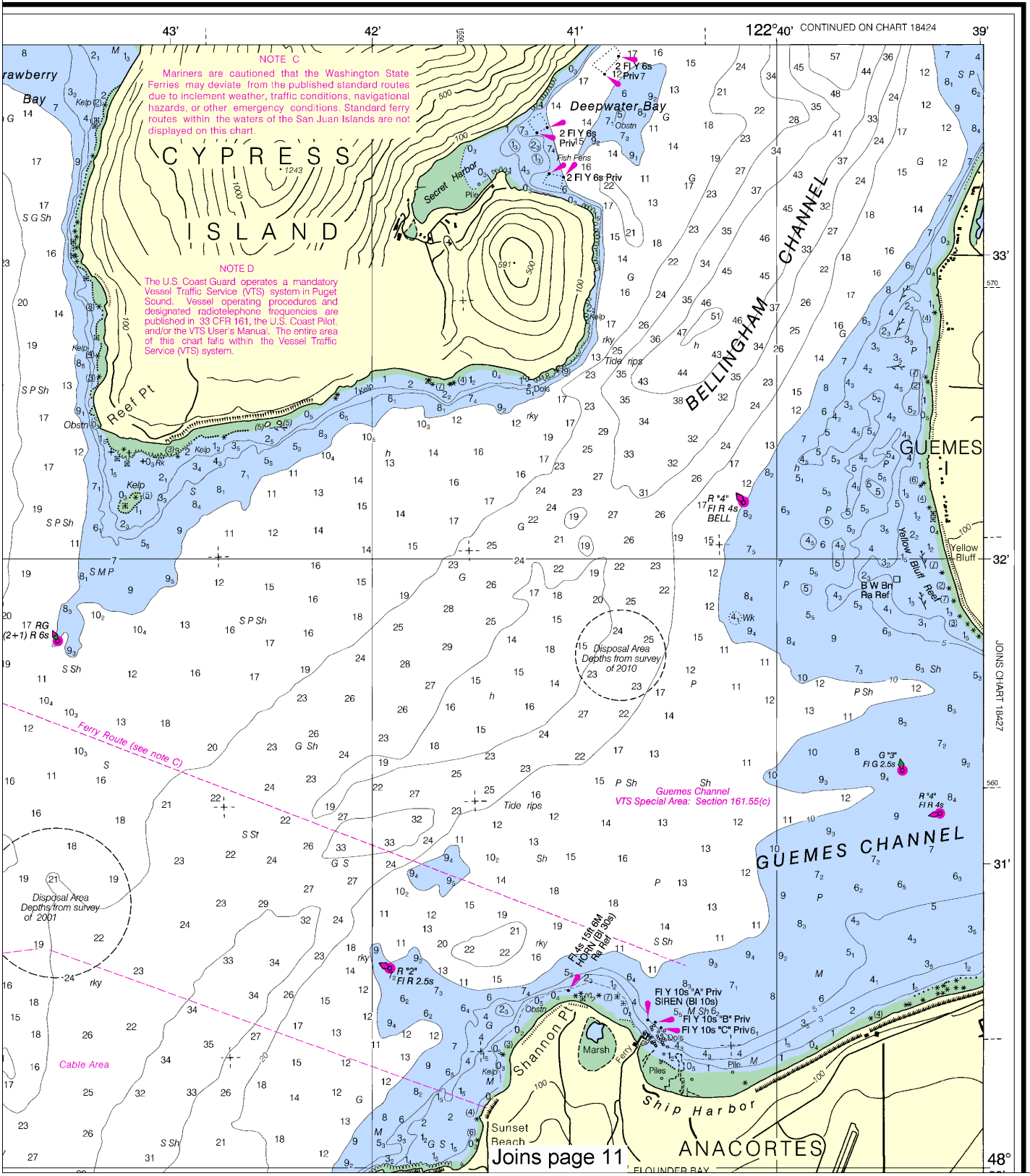
HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.636" southward and 4.632" westward to agree with this chart.

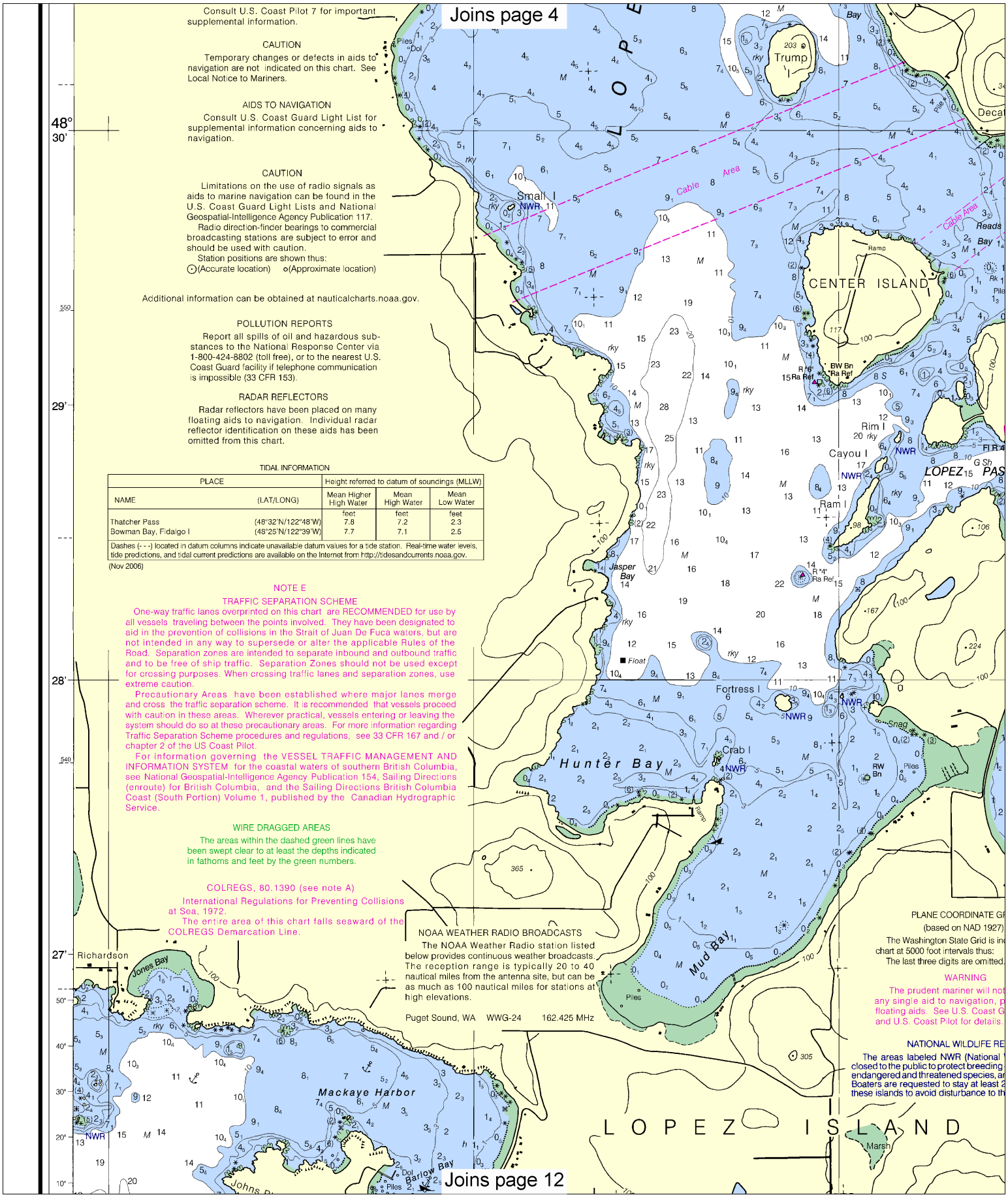
# SOUNDINGS IN FATHOMS

(FATHOMS AND FEET TO 11 FATHOMS)

18429




This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4812 11/27/2012, NGA Weekly Notice to Mariners: 4812 12/1/2012, Canadian Coast Guard Notice to Mariners: 0912 9/28/2012.



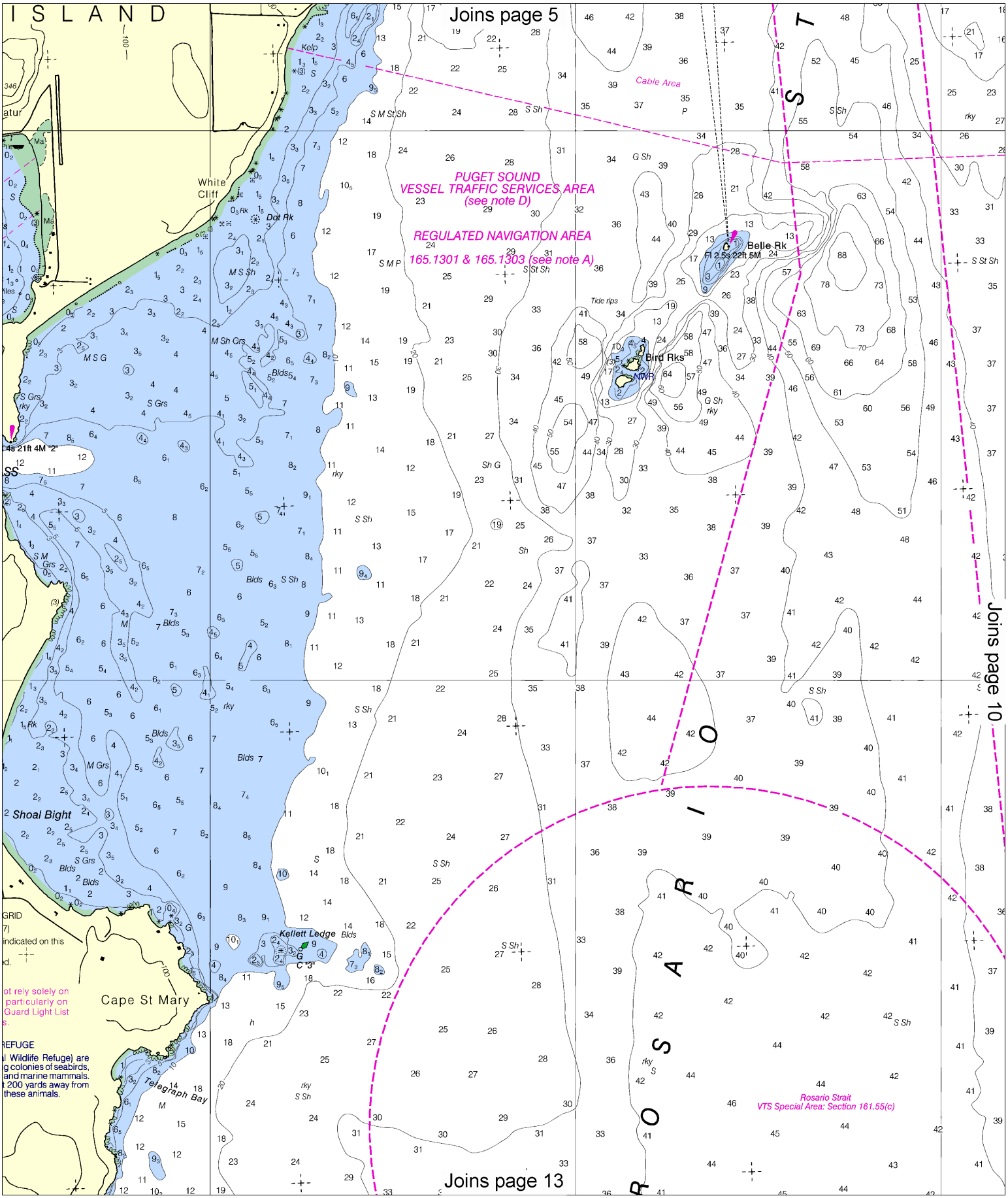

8

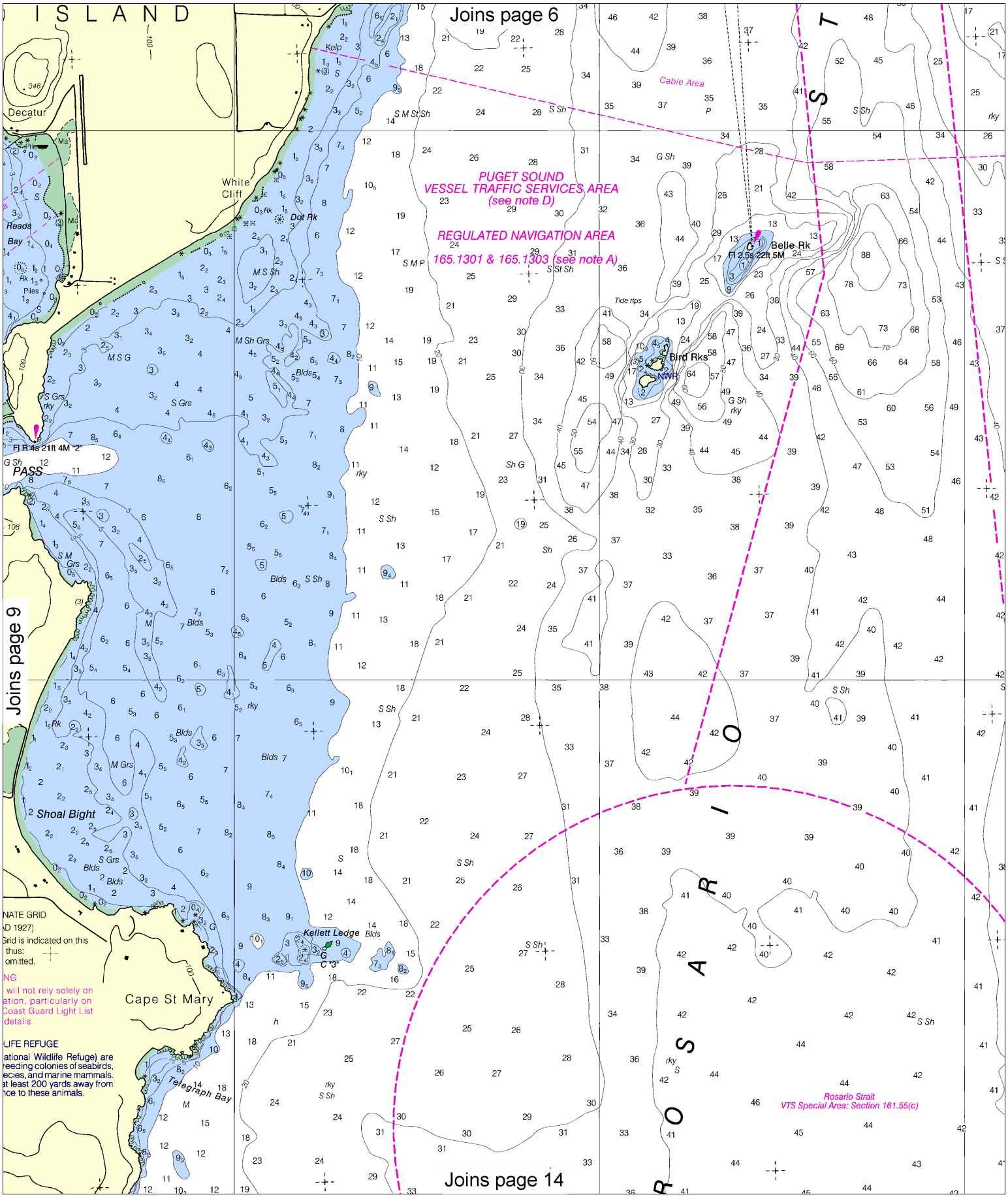
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000


Joins page 5
PUGET SOUND
VESSEL TRAFFIC SERVICES AREA
(see note D)
REGULATED NAVIGATION AREA
165.1301 & 165.1303 (see note A)
Cable Area
Belle Rk
Fl 2.5s 22ft 5M
Bird Rks
NWR
Tide rips
White Cliff
Dot Rk
Kelp
Shoal Bight
Kellett Ledge
Cape St Mary
Telegraph Bay
Rosario Strait
VTS Special Area: Section 161.55(c)
Joins page 10
Joins page 13



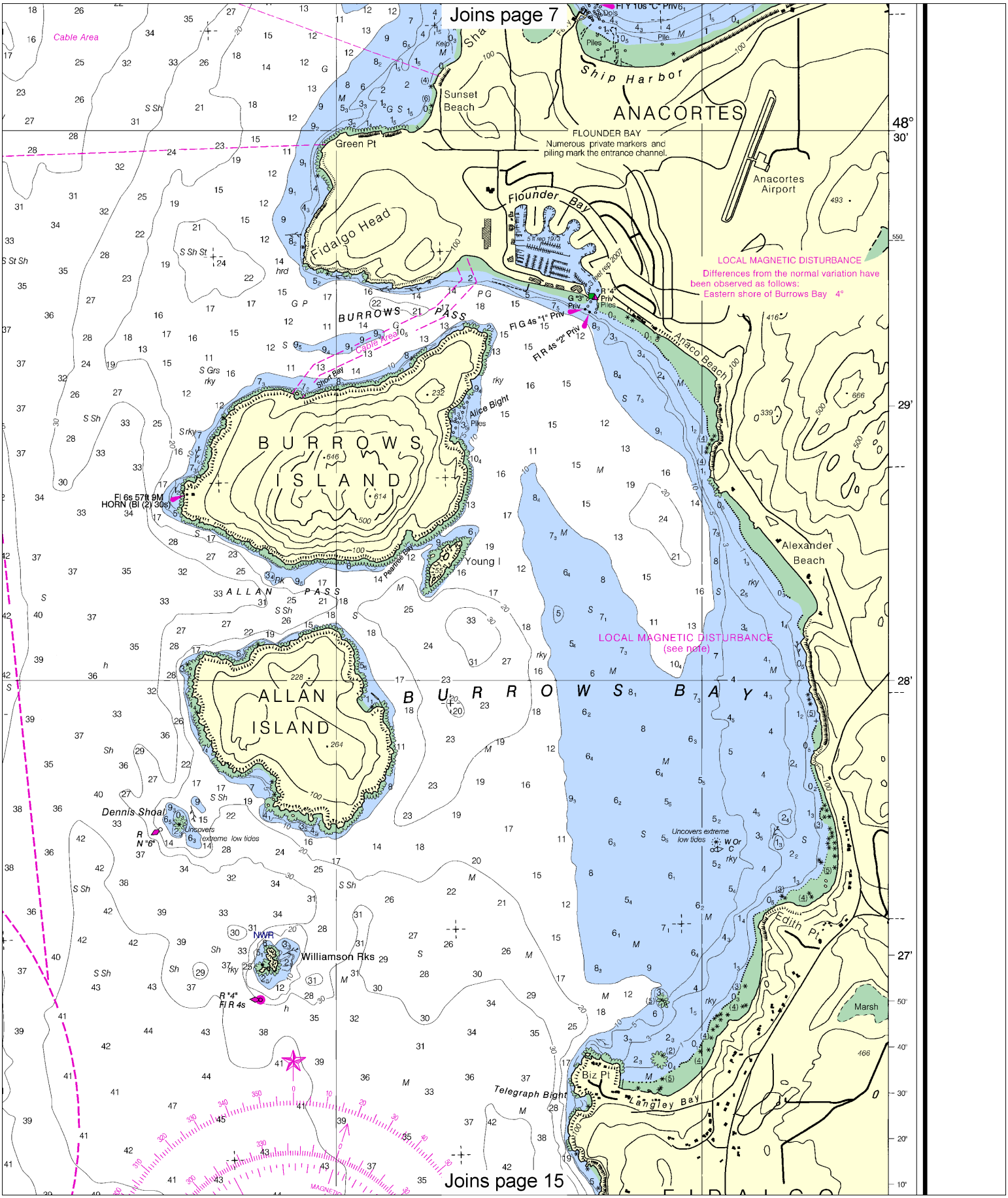


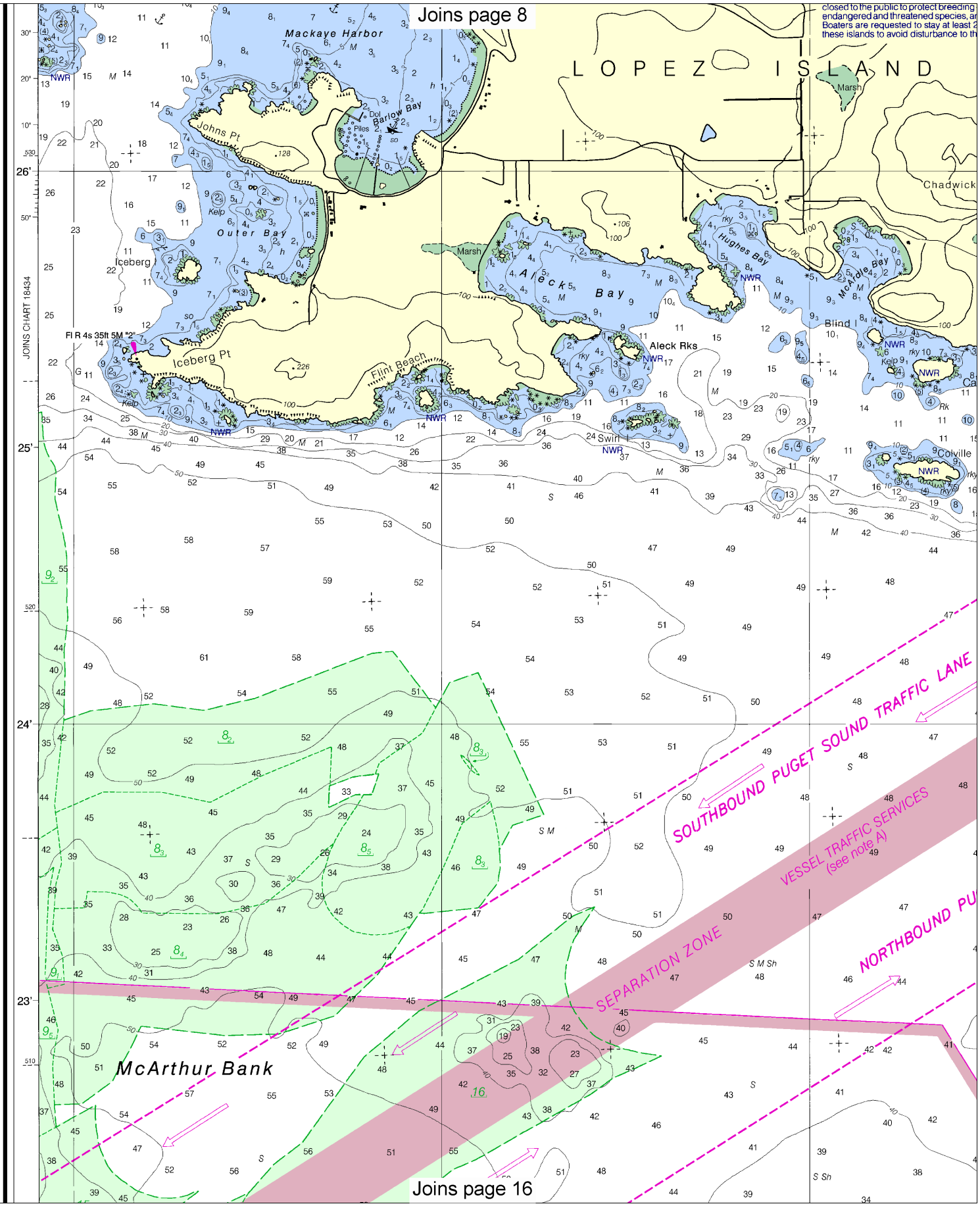

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000


Joins page 7
Cable Area
Sunset Beach
Ship Harbor
ANACORTES
FLOUNDER BAY
Numerous private markers and piling mark the entrance channel.
Green Pt
Anacortes Airport
Flounder Bay
Fidalgo Head
LOCAL MAGNETIC DISTURBANCE
Differences from the normal variation have been observed as follows:
Eastern shore of Burrows Bay 4°
BURROWS PASS
Cable Area
Short Bay
Alice Bight
Anacco Beach
B U R R O W S
I S L A N D
Fl 6s 57ft 9M
HORN (Bl (2) 30s)
Young I
Pearson Pt
A L L A N P A S S
Alexander Beach
LOCAL MAGNETIC DISTURBANCE
(see note)
ALLAN ISLAND
B U R R O W S B A Y
Dennis Shoal
Uncovers extreme low tides
NWR
Williamson Rks
R "4" Fl R 4s
Edith Pt
Marsh
Biz Pt
Telegraph Bight
Langley Bay
Joins page 15
48° 30'
29'
28'
27'



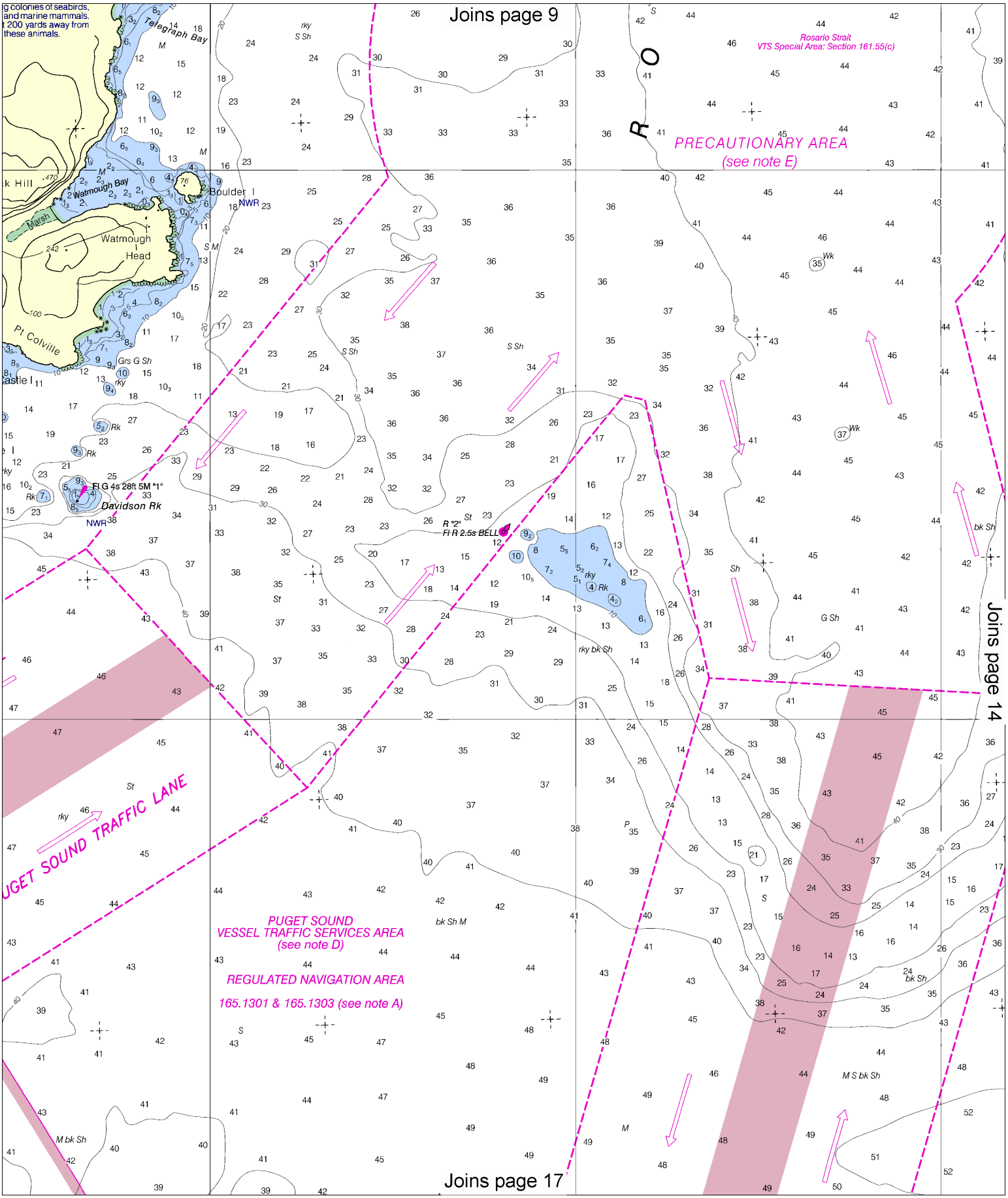


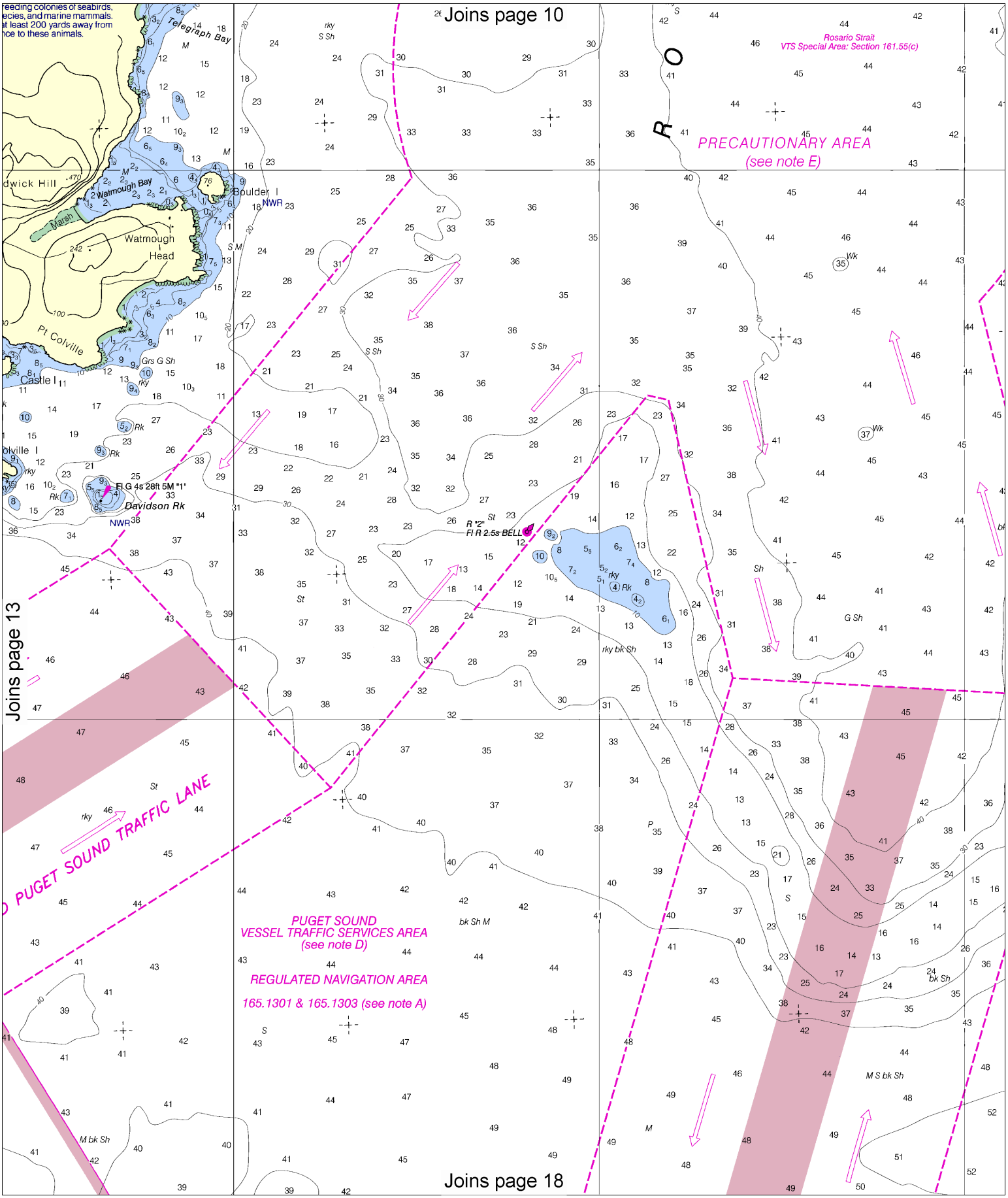

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000


Joins page 9
Rosario Strait
VTS Special Area: Section 161.55(c)
PRECAUTIONARY AREA
(see note E)
Telegraph Bay
Watmough Bay
Boulder I
NWR
Watmough Head
Marsh
Pt Colville
Grs G Sh
Davidson Rk
Fl G 4s 28ft 5M "1"
R "2"
Fl R 2.5s BELL
St
rky
S Sh
Wk
bk Sh
G Sh
rky bk Sh
Joins page 14
PUGET SOUND TRAFFIC LANE
PUGET SOUND
VESSEL TRAFFIC SERVICES AREA
(see note D)
REGULATED NAVIGATION AREA
165.1301 & 165.1303 (see note A)
bk Sh M
M S bk Sh
M bk Sh
Joins page 17



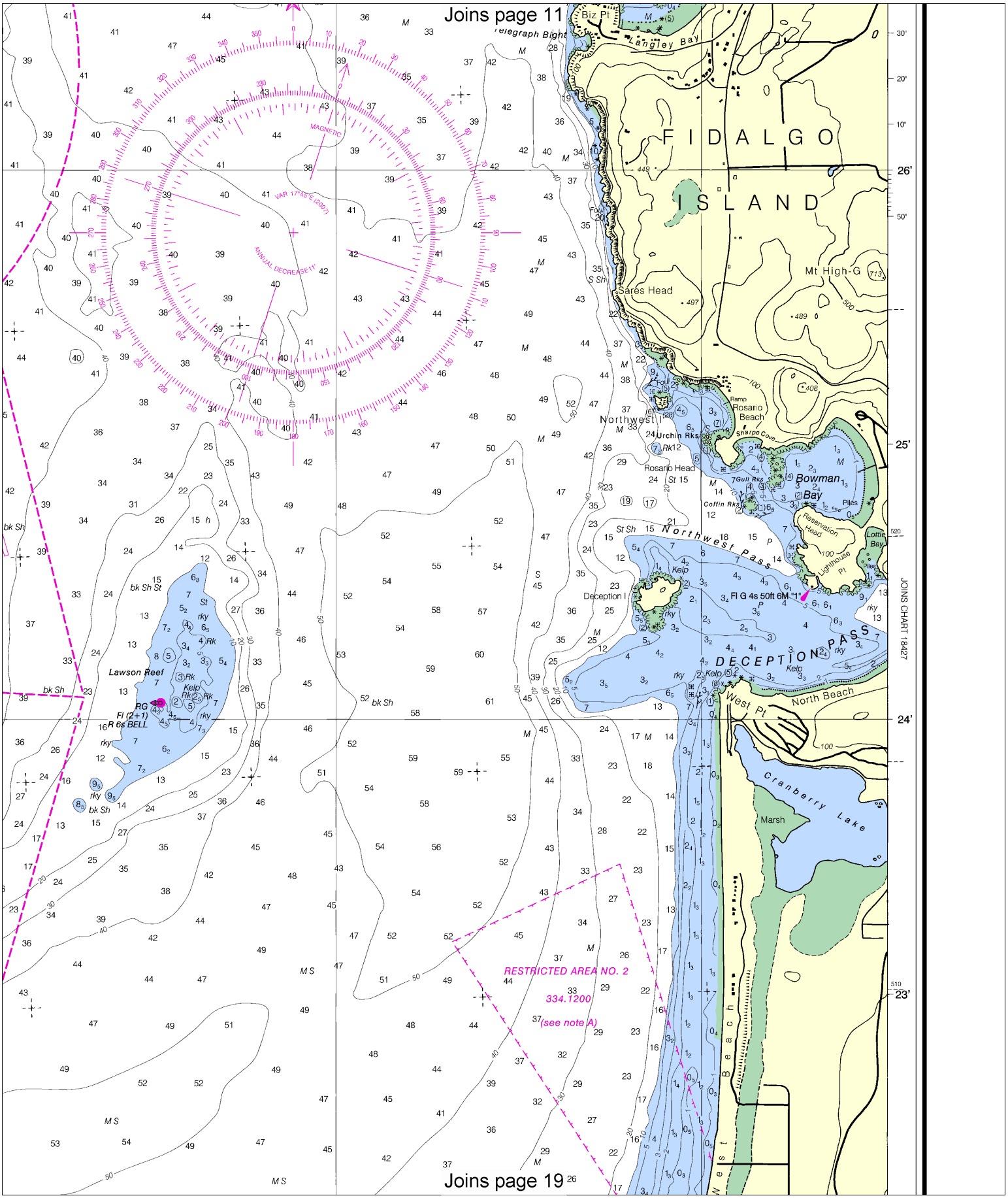


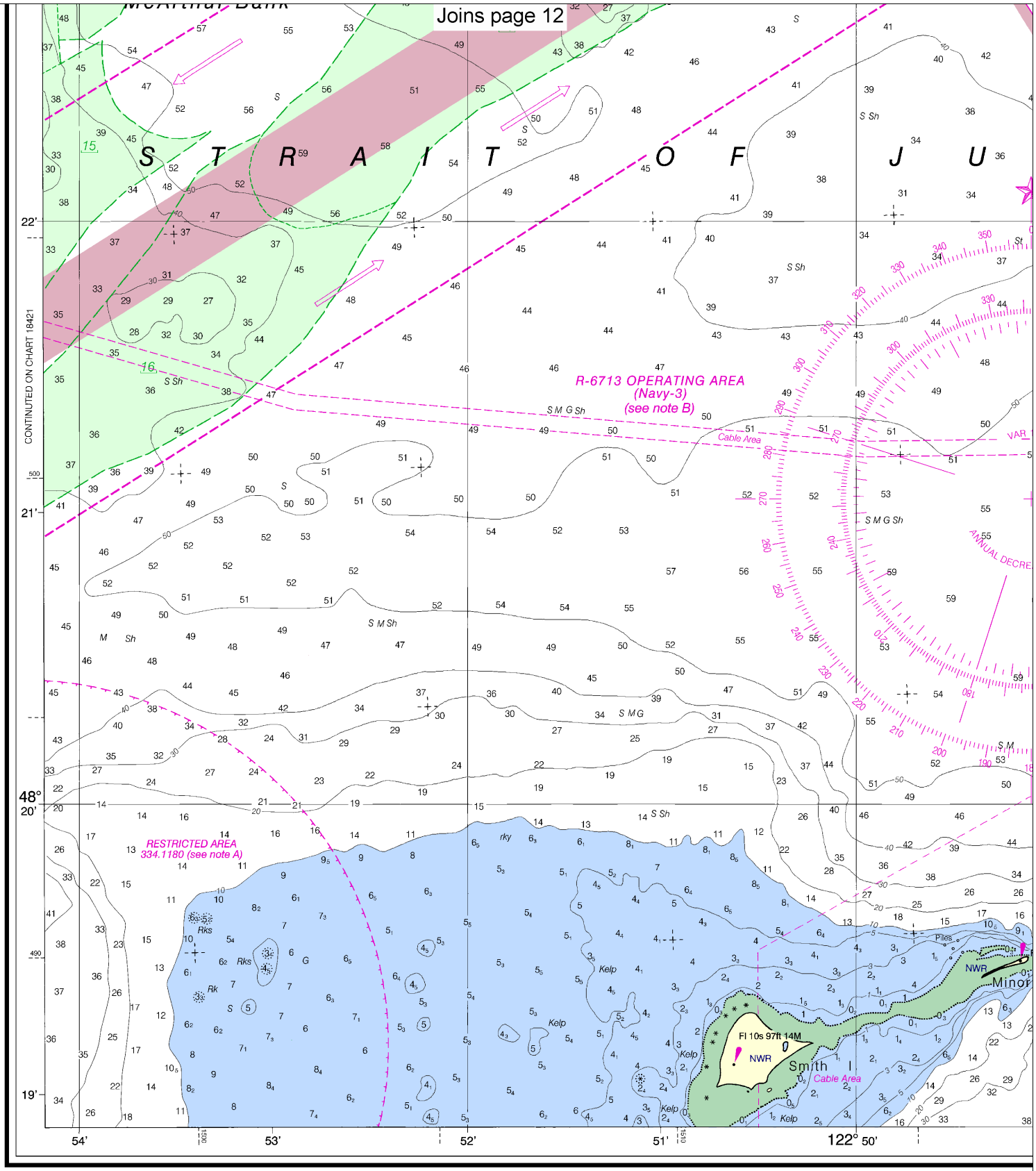

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000


Joins page 11
Biz Pt
Telegraph Bight
Langley Bay
FIDALGO
ISLAND
Mt High-G
713
Sares Head
497
489
500
408
Ramp
Rosario Beach
Sharpe Cove
Northwest I
24 Urchin Rks
Rk12
Rosario Head
24 St 15
Gull Rks
Bowman Bay
Piles
Coffin Rks
Reservation Head
Lottie Bay
Lighthouse Pt
St Sh
Northwest Pass
Kelp
Deception I
Fl G 4s 50ft 6M "1"
DECEPTION PASS
West Pt
North Beach
Cranberry Lake
Marsh
Beach
West
Lawson Reef
Kelp
Rk
RG
Fl (2+1)
R 6s BELL
bk Sh
bk Sh St
rky
M S
RESTRICTED AREA NO. 2
334.1200
(see note A)
MAGNETIC
VAR 17°45'E (2007)
ANNUAL DECREASE 11'
JOINS CHART 18427
Joins page 19
26
25'
24'
23'
30"
20"
10"
50"
620
510




10th Ed., Jan. / 07 ■ Corrected through NM Jan. 13/07
Corrected through LNM Jan. 02/07

# 18429

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

SOUNDINGS IN
(FATHOMS AND FEET TO

16

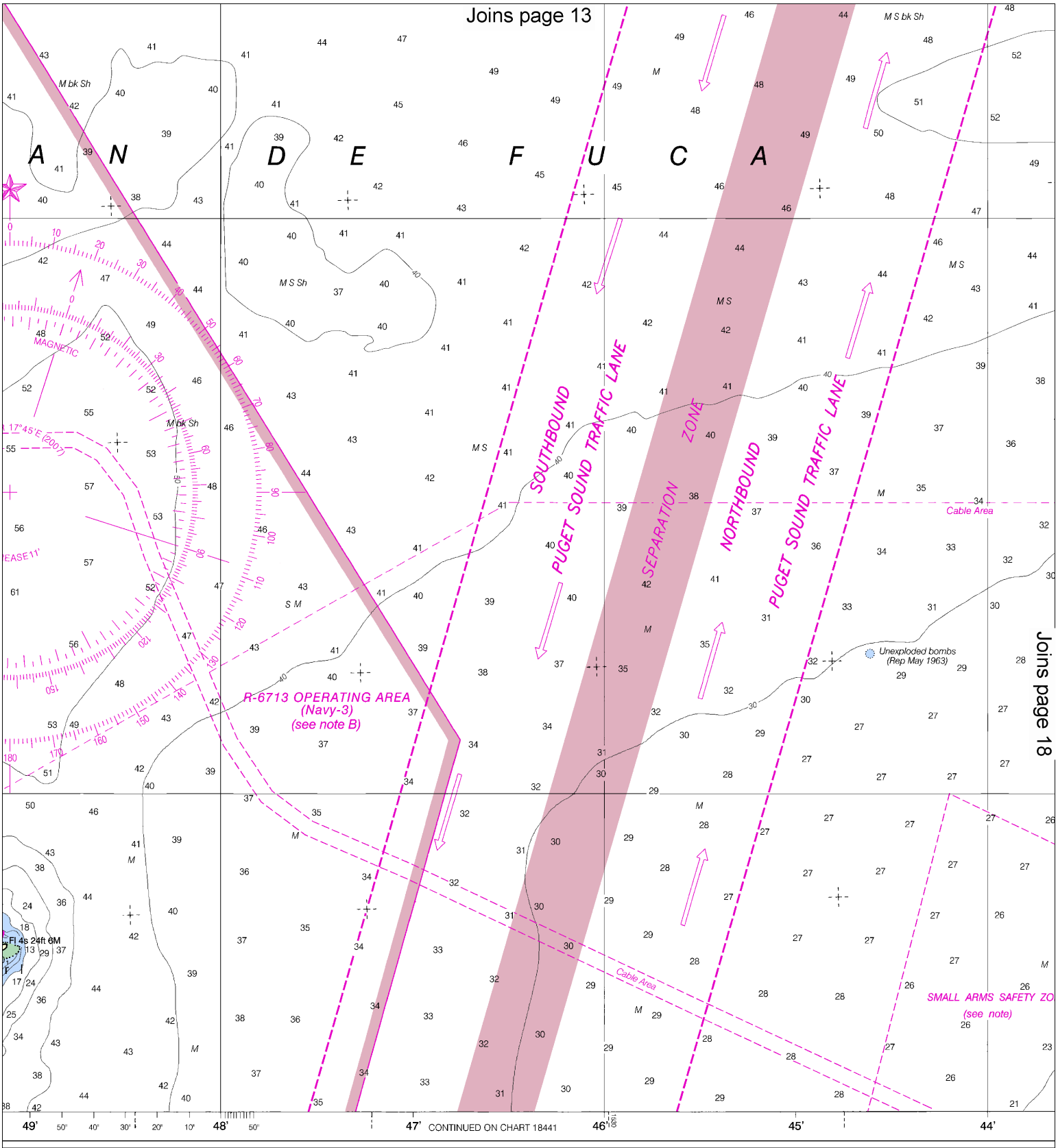
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000

See Note on page 5.

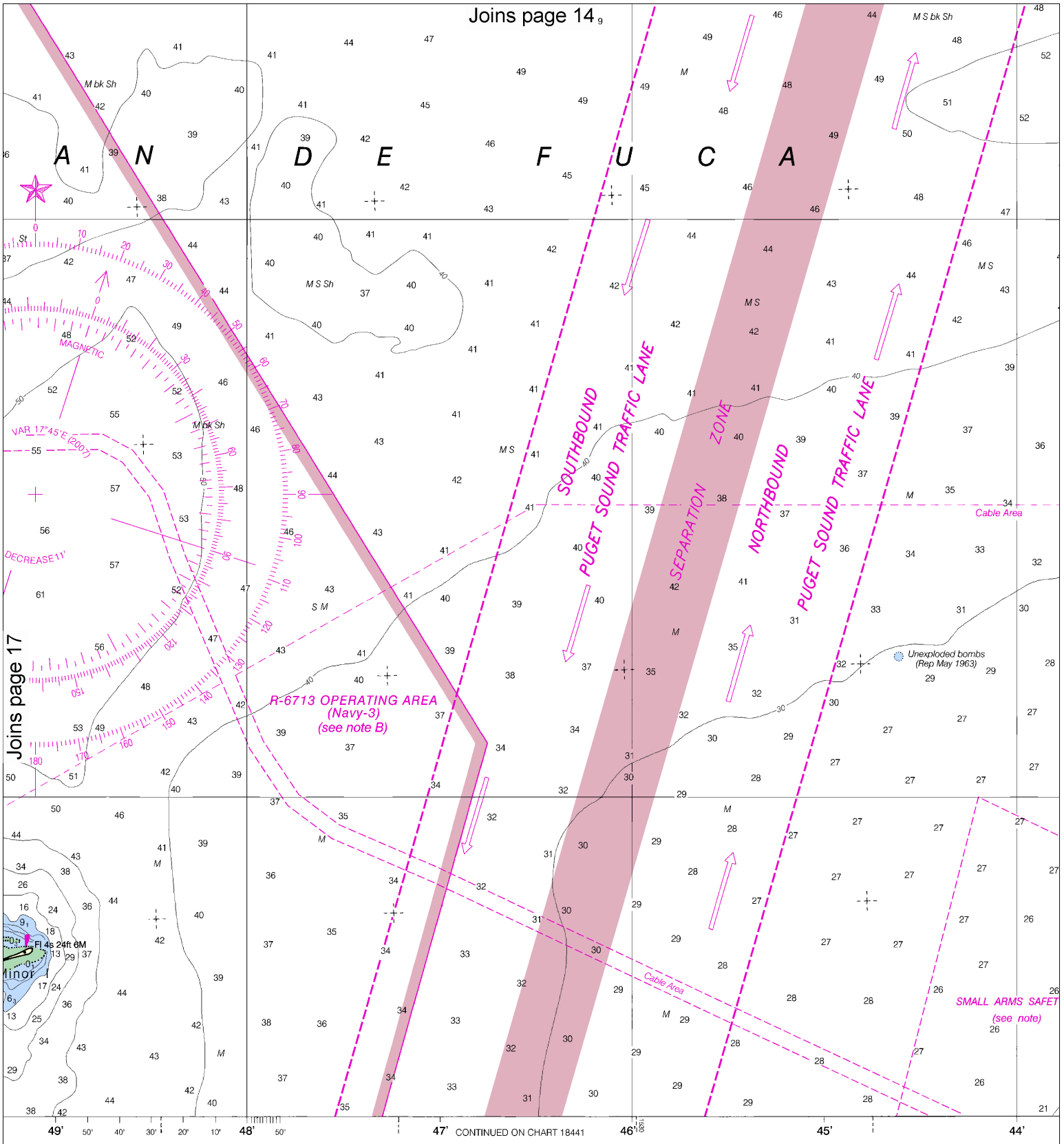



# FATHOMS

) 11 FATHOMS)

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

| | | |
|---|---|---|
| FATHOMS | 1 | 2 |
| FEET | 6 | 12 |
| METERS | 1 2 3 | 4 |




N FATHOMS
T TO 11 FATHOMS)

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

| | |
|---|---|
| FATHOMS | 1 |
| FEET | 6 |
| METERS | 1 2 |

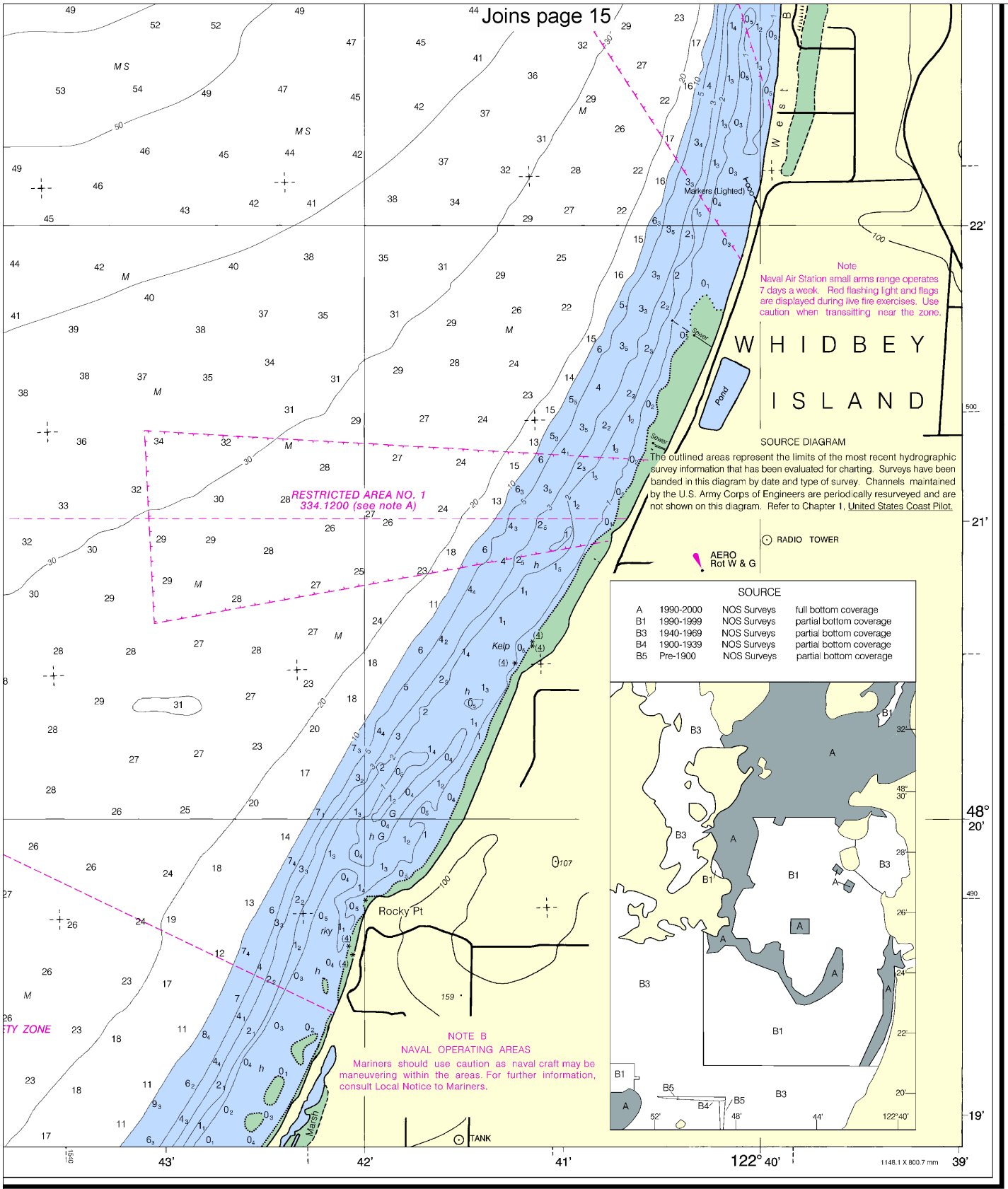
**18**

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000




Rosario Strait, Southern Part

SOUNDINGS IN FATHOMS - SCALE 1:25,000

18429

ED NO. 10

NSN 7642014011561 NGA REFERENCE NO. 18BHA18429

EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.
**Channel 9** – Communications between boats and ship-to-coast.
**Channel 13** – Navigation purposes at bridges, locks, and harbors.
**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

### Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

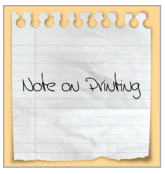
All Hazards NOAA Weather Radio NOAA's National Weather Service

**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
**http://www.nws.noaa.gov/nwr/**

## Quick References

| | | |
|---|---|---|
| Nautical chart related products and information | — | **http://www.nauticalcharts.noaa.gov** |
| Online chart viewer | — | **http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html** |
| Report a chart discrepancy | — | **http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx** |
| Chart and chart related inquiries and comments | — | **http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs** |
| Chart updates (LNM and NM corrections) | — | **http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html** |
| Coast Pilot online | — | **http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm** |
| Tides and Currents | — | **http://tidesandcurrents.noaa.gov** |
| Marine Forecasts | — | **http://www.nws.noaa.gov/om/marine/home.htm** |
| National Data Buoy Center | — | **http://www.ndbc.noaa.gov/** |
| NowCoast web portal for coastal conditions | — | **http://www.nowcoast.noaa.gov/** |
| National Weather Service | — | **http://www.weather.gov/** |
| National Hurrican Center | — | **http://www.nhc.noaa.gov/** |
| Pacific Tsunami Warning Center | — | **http://ptwc.weather.gov/** |
| Contact Us | — | **http://www.nauticalcharts.noaa.gov/staff/contact.htm** |

twitter —— For the latest news from Coast Survey, follow **@nauticalcharts**




This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey The Nation's Chartmaker